

# BUTZEL LONG TIGHE PATTON PLLC

Stephen L. Goodman  
202 454 2851  
sgoodman@butzeltp.com

1747 Pennsylvania Avenue N.W., Suite 300  
Washington, D.C. 20006  
T: 202 454 2800 F: 202 454 2805  
www.butzeltp.com

Licensed in Washington, D.C. and Florida

April 6, 2009

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, D.C. 20554

Re: Ex Parte Meeting -- GN Docket No. 09-40

Dear Ms. Dortch:

On Friday, April 3rd, on behalf of ADTRAN, Inc. ("ADTRAN"), Gary Bolton and I met with Claude Aiken, Theodore Burmeister, Ian Dillner, Kevin Holmes, Jennifer Salhus and Jeff Cohen of the Wireline, Wireless and Public Safety Bureaus. During the presentation, ADTRAN used the attached slides. We discussed two of the issues related to the Commission's consultative role in the broadband provisions of the Recovery Act – the definition of "broadband," and the absence of any need for additional non-discrimination or network interconnection obligations in the context of grants or loans.

## **Definition of "broadband"**

ADTRAN believes that in defining broadband, NTIA and RUS need to consider more than just "speed." The successful adoption of broadband is dependent on a good user experience, so the definition should reflect properties that impact this experience. While there are many factors that can impact this, including how quickly the network can be deployed, in terms of the data communications aspects, there are two main properties of an access medium/network that can affect the user experience: latency (*i.e.*, delay) and sustained data rate (upload and download).

The first factor, latency, can reduce the responsiveness of the internet as HTTP sessions involve many "transactions" and to the degree that the round trip time (RTT) between source and destination is increased by the access network, the responsiveness is decreased. Definitions of broadband should include a component that recognizes the impact of latency on the user experience.

Data rate is also important – not so much for responsiveness, but for the speed of transferring data – large file and image uploads and downloads and streaming applications such as Internet video. As more applications move to streaming, it is the sustained average speed, rather than the peak speed that becomes more important. To date, the FCC has required carriers to report the maximum data rate that a class of users may experience. The FCC has also requested (WC Docket No. 07-38) input on how actual broadband connection speeds might be collected by service providers, and service providers have responded that they are concerned that the collection of such data may be overly burdensome or impossible. While many factors outside the control of the carrier affect actual broadband connection speeds, and may limit the ability for a carrier to report sustainable speeds on Form 477, we suggest a more precise definition of speed should be developed for the purpose of the broadband provisions of the Recovery Act. Rather than maximum connection speed, a definition that defines the sustained speed (*i.e.*, the speed a user can experience under a defined network usage level) is desired and warranted. We suggest that “broadband speed” be defined as that sustained speed which a high percentage (90-99%) of users can attain at a defined network usage level (5 to 15% of users simultaneously transmitting and receiving.)

In terms of absolute numbers, we believe that the “Basic Broadband” speeds from WC Docket No. 07-38 are more than adequate today to provide a good broadband experience, if implemented as sustained speeds with low latency. We recognize that the minimum realized speed to support a good experience will continue to climb over time, and some amount of looking forward is appropriate for the purpose of the broadband provisions of the Recovery Act. To the degree that higher sustained speeds are economically feasible, they should be supported and encouraged by the allocation of funds from the broadband provisions of the Recovery Act.

#### **“Non-Discrimination/Interconnection”**

With respect to the non-discrimination and network interconnection obligations, ADTRAN urges the FCC to recommend to NTIA that it not develop any new non-discrimination or interconnection obligations to impose as part of the BTOP program. The Commission’s Internet Policy Statement has successfully established general principles to govern behavior, and the limited cases of abuse have been addressed by the Commission. There is no demonstrated need for any more elaborate oversight scheme. Moreover, vague or unnecessarily strict regulations could chill broadband deployment.

Likewise, the FCC’s Internet Policy Statement prescribes interconnection obligations insofar as consumers are entitled to access the lawful Internet content of their choice, run applications and use services of their choice and connect their choice of legal devices that do not harm the network (subject to reasonable network management). Imposing additional unbundling

April 6, 2009  
Marlene H. Dortch

or other network interconnection obligations in the BTOP program would be unnecessary and would be likely to chill broadband deployment.

In accordance with Section 1.1206 of the Commission's Rules and the Commission's Public Notice in this proceeding (DA 09-668), a copy of this notice is being filed via the Electronic Comment Filing System in the docket for the above-captioned proceeding. Please contact the undersigned if you have any questions with regard to this matter.

Sincerely,



Stephen L. Goodman  
Counsel for ADTRAN, Inc.

cc: Claude Aiken  
Theodore Burmeister  
Ian Dillner  
Kevin Holmes  
Jennifer Salhus  
Jeff Cohen

BUZZELL LONG  
TIGHE PATTON PLLC

# Broadband Stimulus

*More Broadband per Stimulus Dollar \$*

April 3, 2009



# Company Overview

## Reliable access for today's communications networks

- Comprehensive product portfolio > 1,700 products
- 2008 revenue - \$501 million
- 2008 Product Development Investment - \$82M
- 1,600 employees

## Broadband Market Leadership

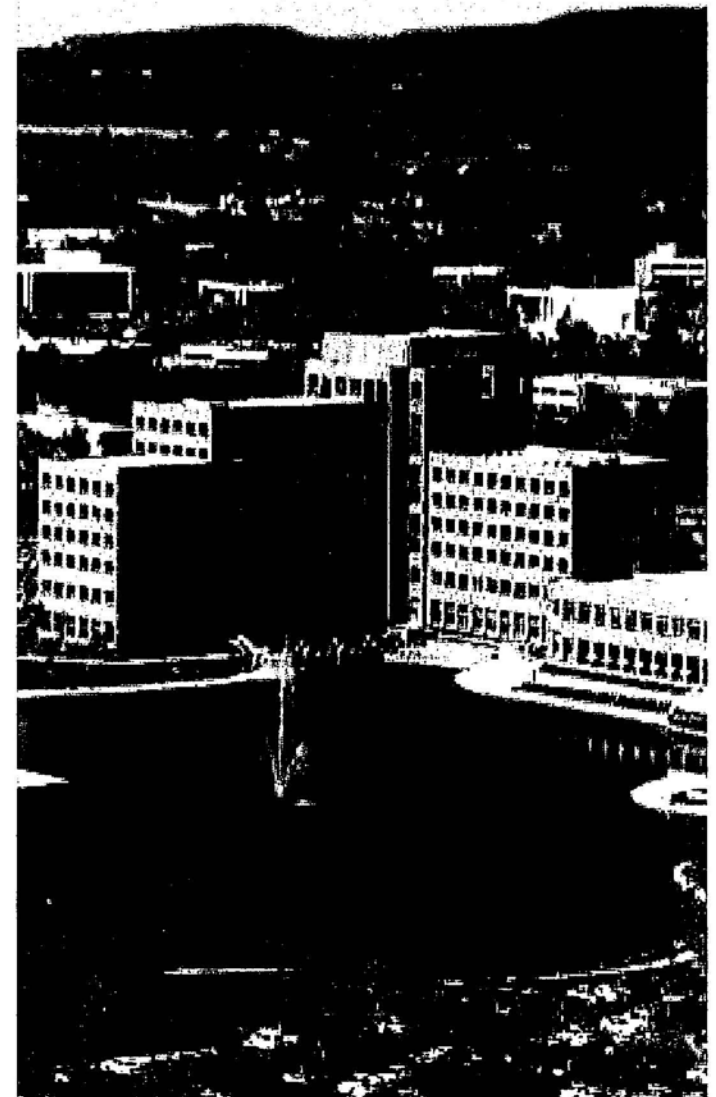
- #1 Supplier of High-Bit-Rate DSL (HDSL) Equipment
- #2 DSL Equipment Supplier in North America
- #1 Supplier of Fiber-To-The-Node Sealed Outside Plant DSLAMs
- #2 Routers, Ethernet Switches, IP Business Gateways

## U.S. Based Company

- Headquartered in Huntsville, AL
- US Manufacturing – Huntsville, AL

## Traded on NASDAQ: ADTN

- Strong Balance Sheet
- 20 year history of continuous profitability





# Broadband User Experience

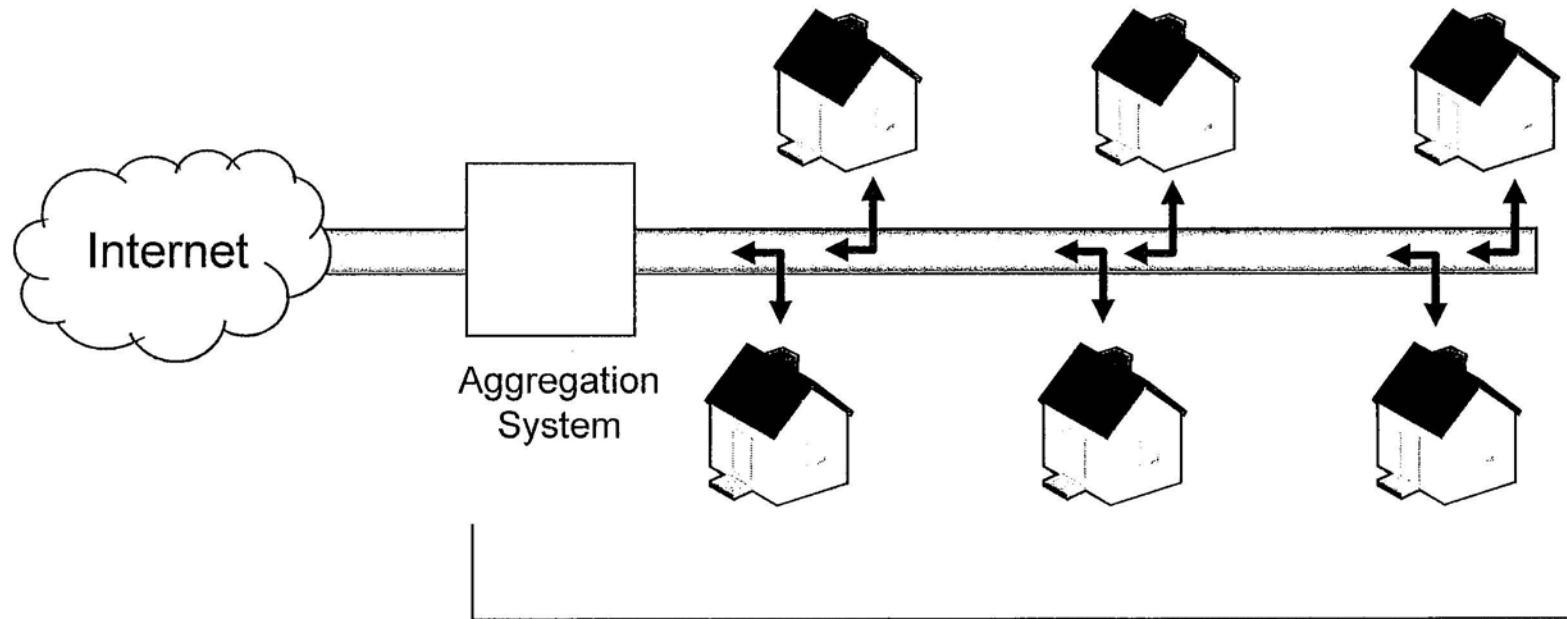
Successful Adoption of Broadband is dependent on good user experience

Two main factors affect user experience

1. Latency
2. Sustained Data Rate (upload and download)

Definition of "Broadband" should include components that recognize the impact of latency and sustained data rates on the user experience

# Broadband Over Shared Media

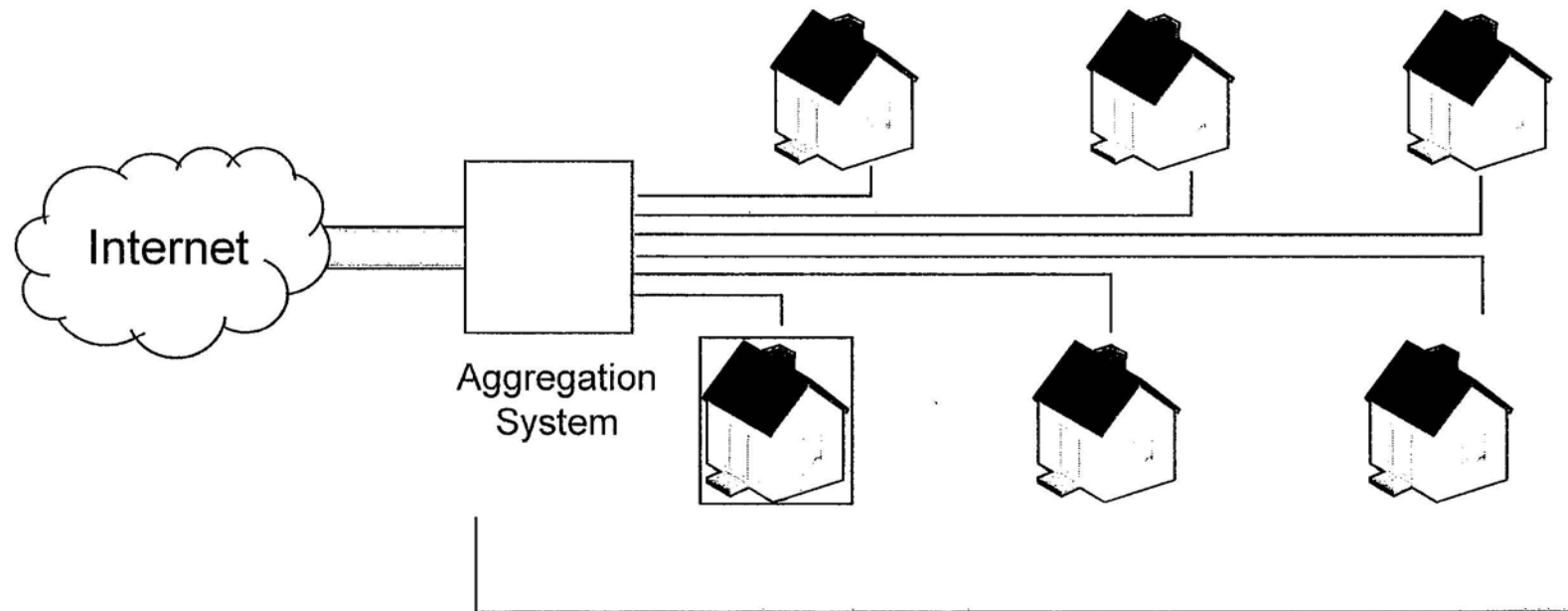


## Shared Access Architecture

Maximum rate set by rate of shared channel

Sustainable rate determined by number of users sharing the channel

# Broadband Over Dedicated Media



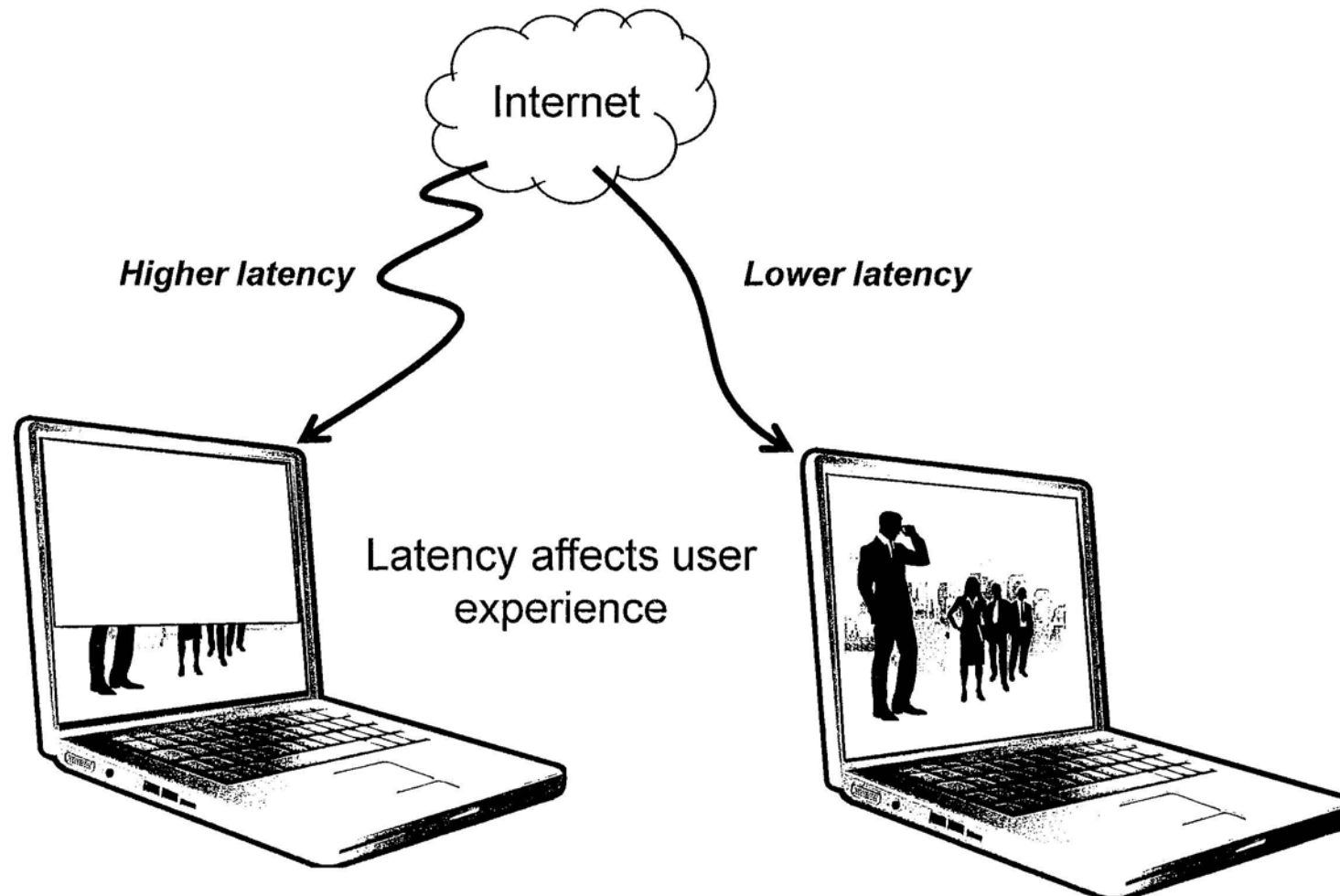
## Dedicated Access Architecture

Maximum rate set by rate of each dedicated link

Sustainable rate *not* affected number of users transmitting or receiving



# Latency Impacts Broadband Experience





**ADTRAN®**

**Smart Solutions for a  
Connected World.**

